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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Docket No: Q64995

Atsushi OOHASHI, et al.

Appln. No.: 09/888,656

Group Art Unit: 2834

Confirmation No.: 9112

Examiner: Julio C. GONZALEZ

Filed: June 26, 2001

For: STATOR FOR A DYNAMO-ELECTRIC MACHINE AND METHOD OF
MANUFACTURING THE SAME

REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.41, Appellant respectfully submits this Reply Brief in response to the Examiner's Answer dated May 17, 2006. Entry of this Reply Brief is respectfully requested.

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STATUS OF CLAIMS

Claims 1-13 are all of the claims pending in the application. Claims 6-13 are withdrawn from consideration as being directed to a non-elected invention. Pending claims 1-5 are rejected, and are the subject of this appeal.

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GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kusase et al. (U.S. Patent No. 6,181,043; hereafter “Kusase”) in view of Aversten (U.S. Patent No. 2,711,798).
- B. Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kusase in view of Aversten and Baines (U.S. Patent No. 4,705,972).
- C. Claims 4 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kusase in view of Aversten, Baines and Seki et al. (U.S. Patent No. 5,698,929).
- D. Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kusase in view of Aversten, Baines and “ordinary skill in the art”.

ARGUMENT

A. Rejection of claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kusase and Aversten

It is respectfully submitted that claim 1 would not have been rendered obvious in view of the Examiner's proposed combination of Kusase and Aversten. In particular, Appellant respectfully submits that one of ordinary skill in the art would not have been motivated to modify the stator Kusase based on the teachings of Aversten (or the any of other cited references) to produce the claimed invention.

As discussed in the Appeal Brief filed November 22, 2005, Kusase teaches dipping abutting end portions 433d of abutting copper conductor segments in a tank 440 of melted solder 430 so that melted solder 430 is coated on the end portions 433d to form a connected portion 433f which is ball-shaped (i.e., a liquid drop, a raindrop, or a flat ball) and has a smooth roundish surface.¹ The solder is not interposed between the abutting end portions 433d since the end portions are already abutting before being dipped, i.e., the solder coating simply commonly coats the abutting end portions 433d. Kusase expressly teaches that the ball-shaped connection portion is formed in order to eliminate the sharp edges of the joined end portions of the conductor segments because the sharp edges may cause concentration of mechanical stress and electrochemical stress, and facilitate accumulation of dust or foreign particles.²

¹ Kusase at column 5, line 64 - column 6, line 14.

² See Kusase at col. 1, lines 28-41.

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Accordingly, Appellant submits that Kusase teaches away from the present invention, and modifying Kusase as proposed by the Examiner would impermissibly change the principle of operation of Kusase's connection portions. In particular, modifying the stator winding of Kusase to join the end portions of the conductor segments by inserting a piece of solder between the end portions and melting the solder, as proposed by the Examiner, instead of dipping the conductor segments in a tank of molten solder so as to form a ball-shaped cover over the outer surfaces and edges of the conductor segments, would completely defeat the stated objectives of Kusase's teachings and change the principle of operation of the disclosed structure of the connection portions. However, as set forth in MPEP 2143.01, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Furthermore, teaching away is *prima facie* evidence of non-obviousness. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). See *Tec Air Inc. v. Denso Manufacturing Michigan Inc.*, 192 F.3d 1353, 52 USPQ2d 1294 (Fed. Cir. 1999).

"To establish a *prima facie* case of obviousness, [the Examiner] must show 'some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine [or modify] the relevant teachings of the references.' *In re Fine*, 837 F.2d at 1074, 5 USPQ2d at 1598. There is no suggestion to combine [or modify], however, if a reference teaches away from its combination with another source. See *id.* at 1075, 5 USPQ2d at 1599. '*A reference may be said to teach away when a person of*

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ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant . . . [or] if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant.' *In re Gurley*, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994) (emphasis added). If when combined, the references "would produce a seemingly inoperative device," then they teach away from their combination [or modification]. *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (CCPA 1969); see also *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (finding no suggestion to modify a prior art device where the modification would render the device inoperable for its intended purpose).

Id. at 192 F.3d 1353, 52 USPQ2d 1294.

On page 9 of the Examiner's Answer, the Examiner responds to Appellant's arguments regarding Kusase teaching away from the claimed invention by citing *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985) for the proposition that "the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious." However, the Board's decision in *Ex parte Obiaya* and the Examiner's quote thereof is not in any way related to a prior art reference teaching away from the modification proposed by the Examiner. Instead, the Examiner's quote from *Ex parte Obiaya* is directed to the case where the claimed invention provides an advantage which would flow naturally from following the suggestion of the prior art, i.e., a *prima facie* obviousness is not rebutted by merely recognizing additional advantages or latent properties of the prior art.³

³ As discussed at MPEP 2145(II), in *Ex parte Obiaya*, the prior art taught combustion fluid analyzers which used labyrinth heaters to maintain the samples at a uniform temperature. Although appellant ... (footnote continued)

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On page 8 of the Examiner's Answer, the Examiner asserts that "Aversten provide[s] a strong motivation for using solder with a lower melting point than the metallic members for not melting the metallic members (column 2, lines 66, 67) and for specifically interposing the solder between the two metallic members for not oxidizing or vaporizing the melted metal (column 2, line 68). However, as discussed in the Appeal Brief, Kusase's method of joining the end portions of the conductor segments (i.e., dipping the end portions in a tank of melted solder) already produces a connected portion which avoids melting the metallic members and avoids oxidizing the melted metal. Accordingly, one skilled in the art would not be motivated to change the structure of Kusase's stator winding when that winding already possesses the benefits of the proposed modification. Therefore, since the Examiner's sole reasoning for modifying Kusase's connection of the conductor segments based on the teachings of Aversten is to accomplish something that is already present in the Kusase reference, Appellant respectfully submits the Examiner has not provided a convincing line of reasoning of why one skilled in the art would have found the combination of the teachings of the cited references obvious.⁴

showed an unexpectedly shorter response time was obtained when a labyrinth heater was employed, the Board held this advantage would flow naturally from following the suggestion of the prior art.

⁴ "To support the conclusion that the claimed invention is directed to obvious subject matter, either references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the reference." *Ex parte Clapp* 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

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In view of the above, Appellant respectfully submits that claim 1 should be allowable because one of ordinary skill in the art would not have been motivated to combine and modify the cited references to produce the claimed invention.

B. Rejection of claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Kusase in view of Aversten and Baines

Appellant respectfully submits that Baines does make up for the above noted deficiencies of Kusase and Aversten. Accordingly, Appellant respectfully submits claim 2 should be allowable over the cited references at least by virtue of its dependency on claim 1.

C. Rejection of claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Kusase in view of Aversten, Baines and Seki

Appellant respectfully submits that Baines and Seki do make up for the above noted deficiencies of Kusase and Aversten. Accordingly, Appellant respectfully submits claims 4 and 5 should be allowable over the cited references at least by virtue of their dependency on claim 1.

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D. Rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Kusase in view of Aversten, Baines and “ordinary skill in the art”

Appellant respectfully submits that Baines and “ordinary skill in the art” does make up for the above noted deficiencies of Kusase and Aversten. Accordingly, Appellant respectfully submits claim 3 should be allowable over the cited references at least by virtue of its dependency on claim 1.

CONCLUSION

For the above reasons as well as the reasons set forth in Appeal Brief, Appellant respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,



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